



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,002	09/30/2003	Brian K. Campbell	EMC-03-046	5206

24227 7590 04/18/2007
EMC CORPORATION
OFFICE OF THE GENERAL COUNSEL
176 SOUTH STREET
HOPKINTON, MA 01748

EXAMINER

ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
----------	--------------

2112

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/675,002	CAMPBELL ET AL.	
	Examiner	Art Unit	
	Fritz Alphonse	2112	

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

0.1 This Office Action is in response to the amendment filed on 1/23/2007. Claims 1-20 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagiawara (U.S. Pat. No. 5,450,419).

As to claim 10, Hagiawara (fig. 1) shows a data transmission system comprising:
a transmission device (i.e., main controller 2) for transmitting command data elements to a downstream device, the command data elements being generated and transmitted according to a predetermined protocol; and a reception device (i.e., nodes 3-1 to 3-n) for receiving response data elements from the downstream device, the reception device including a protocol checking device for checking at least one state of the response data elements to determine the validity of the at least one state of the response data elements col. 3, lines 10-49).

As to claim 11, Hagiawara (fig. 1) shows a system, wherein the at least one state of the response data elements includes a data structure of the response data elements (col. 4, lines 10-16).

As to claims 12-13, Hagiawara does not explicitly disclose the protocol checking device

Art Unit: 2112

transmits a status signal to the transmission device to notify the transmission device of the invalidity. However, the limitation is obvious and well known in the art, as evidenced by Parr (see paragraph [0023 and 0028]). See the motivation for the same reason disclosed in claim 1 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara (U.S. Pat. No. 5,450,419) in view of Parr (US Pub. 2002/0194571).

As to claims 1 and 6, Hagiawara discloses an error checking method an apparatus comprising: an input device (i.e., input circuit 30) for receiving a data element including parity information; a parity check device (i.e., CRC check 33) for checking the parity information of the data element to determine whether the data element is valid; a CRC generator (i.e., CRC error code addition 39) coupled to the parity check device (33) for generating a CRC for the data element. In addition, Hagiawara (fig. 3) discloses an output device (35) for transmitting the data element with the parity information and CRC to a downstream device over a transmission link (col. 3, lines 60 through col. 4 line 5).

Hagiawara does not explicitly teach the parity check device is operative to output a corruption signal to the CRC generator if the parity check device determines that the data

Art Unit: 2112

element is invalid, to instruct the CRC generator to corrupt the CRC generation for that data element.

However, in the same field of endeavor Parr discloses a system and method of coding cyclic redundancy check bits wherein parity check device is operative to output a corruption signal to the CRC generator if the parity check device determines that the data element is invalid (see paragraph [0023 and 0028]).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to combine Hagiawara's error checking apparatus with the system and method of coding cyclic redundancy check bits, as disclosed by Parr. Doing so would provide a system for reducing interference between communications occurring on the same frequency in different beams of a satellite communications network.

As to claim 2, Hagiawara discloses an error checking method further comprising transmitting the data element with the parity information and CRC to a downstream device over a transmission link (figs. 1- 3; col. 3, lines 60 through col. 4 line 5).

5. Claims 3-5, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara and Parr as applied to claims 1 and 6 above, and further in view of Hong (U.S. Pat. No. 5,903,301).

As to claims 3-5 and 7-9, Hagiawara does not explicitly disclose transmitting an alarm signal to the downstream device if the generation of the CRC has been corrupted. However, the limitation is obvious and well known in the art, as evidenced by Hong (col. 4, lines 20-44).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to improve upon the apparatus for removing data, as disclosed by Hong. Doing

Art Unit: 2112

so would provide an apparatus for removing unnecessary data in communication networks, in which, by removing the unnecessary data, the components of the receiving data (such as hardware and software) are protected.

6. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara and Parr as applied to claims 1 and 6 above, and further in view of Hurt (U.S. Pat. No. 6,954,885).

As to claim 14, Hagiawara (figs. 1-3) discloses a data transmission system comprising: a data transmission device (i.e., main controller 2) for transmitting data elements to a downstream device; a data reception device (i.e., nodes 3-1 to 3-n) for receiving data elements from the downstream device, the data reception device including: an input CRC checking device (see figure 3; 30) coupled to receive the data elements from the downstream device; an output CRC (35) checking device coupled to receive the data elements from the memory device for checking the validity of the data elements based on the CRC associated with each data element.

Hagiawara does not explicitly disclose a memory device coupled to the input CRC checking device for storing data elements. However, the limitations are obvious and well known in the art, as evidenced by Hurt (U.S. Pat. No. 6,954,885). See col. 30, lines 30-60.

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Hagiawara by including a memory device for storing counter values, as disclosed by Hurt. Techniques that can be used to efficiently code data with shorter processing delays.

As to claim 15, Hagiawara does not explicitly disclose the input CRC checking device notifies the data transmission device that at least one data element received by the data reception

Art Unit: 2112

device is invalid. However, the limitation is obvious and well known in the art, as evidenced by Parr (see paragraph [0023 and 0028]). See the motivation for the same reason disclosed in claim 1 above.

As to claims 16 and 19, Hagiawara does not explicitly disclose a memory device including a FIFO device. However, the limitations are obvious and well known in the art, as evidenced by Hurt (U.S. Pat. No. 6,954,885). See col. 30, lines 30-60.

As to claims 17, 18 and 20, Hagiawara (figs. 1) show a system, wherein the data reception device (nodes 3-1 to 3-n) includes a first data element processing path and a second data element processing path for processing different portions of the received data elements.

Response to Arguments

7. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

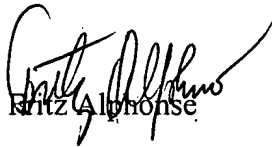
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

Art Unit: 2112

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached at (571) 272-6962.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RITZ ALPHONSE

Art Unit 2133

April 13, 2006



GUY LAMARRE
PRIMARY EXAMINER

4/15/07